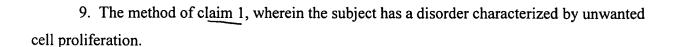
What is claimed is:

- 1. A method of inhibiting angiogenesis in a subject comprising decreasing syndecan-4 expression, level, or activity in the subject.
- 2. The method of claim 1, wherein syndecan-4 expression, level, or activity, is decreased by administering an agent which decreases syndecan-4 expression.
- 3. The method of claim 1, wherein the agent which decreases syndecan-4 expression, level, or activity, is selected from the group consisting of: a syndecan-4 nucleic acid molecule that can bind to cellular syndecan-4 mRNA and inhibit expression of the protein, an antibody that specifically binds to syndecan-4 protein, and an agent which decreases syndecan-4 nucleic acid expression.
- 4. The method of claim 1, wherein the agent which decreases syndecan-4 expression, level, or activity, is selected from the group consisting of: peptides that bind to syndecan-4 (either intracellularly or extracellularly) and inhibit it.
- 5. The method of claim 4 wherein the peptide is a soluble inhibitory form of a naturally occurring ligand.
- 6. The method of claim 4 wherein the peptide is a soluble inhibitory form of fibronectin or a fragment thereof.
- 7. In a preferred embodiment expression, level, or activity is decreased in a fibroblast or an endothetial cell.
 - 8. The method of claim-1, wherein the subject has a disorder or condition characterized by unwanted angiogenesis or which can be treated by decreasing angiogenesis.



- 10. The method of claim 1, wherein the subject has cancer.
- 11. The method of claim 10, wherein the cancer is characterized by the presence of a solid tumor.
 - 12. The method of claim 1, further comprising inhibiting a syndecan-4 co-receptor.
 - 13. The method of claim 12, wherein the co-receptor is FGF-2 receptor.
- 14. The method of claim 13, wherein an anti-FGF-2 receptor antibody, anti-FGF-2 antibody, soluble ligand binding fragment of the FGF-2 receptor, or soluble co-receptor binding fragment of FGF-2 is administered to the subject.
- 15. A method of identifying a compound which can be used to inhibit angiogenesis, comprising:

providing a cell, a tissue, or a subject;

treating the cell or the tissue, or the subject with a candidate compound; and determining the level of syndecan-4 nucleic acid or syndecan-4 protein, wherein the ability of the compound to decrease sydecan-4 nucleic acid or syndecan-4 protein is indicative of a compound which can be used to inhibit angiogenesis.

16. The method of <u>claim 15</u>, further comprising evaluating a control cell, tissue or subject that is not treated with the candidate compound.

